Ordering number:ENN1044C

Monolithic Digital IC

LB1291

8-Channel Driver Array

Overview

The LB1291 has been designed for interfacing between low level digital devices and fluorescent display tubes. Its 8-channel independent Darlington output stage is used for digit or segment drivers. Also, with pull-down equivalent resistors, no externally connected resistors are required for ghost prevention. When the input voltage is at a high level, the output gets activated.

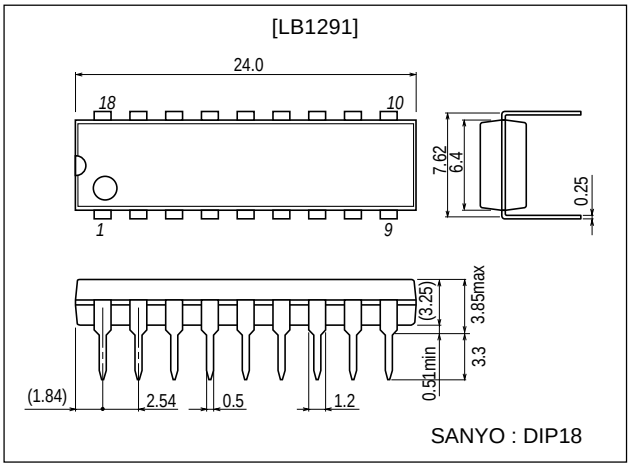
Features

- 8-channel independent Darlington driver.
- Capable of driving digits or segments.
- On-chip sink current circuit for pull-down.
- 55V/30mA rating.

Package Dimensions

unit:mm

3007B-DIP18



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max		–0.3 to +55.0	V
Output supply voltage	V_{OUT}		–0.3 to V_{CC}	V
Input supply voltage	V_{IN}		–0.3 to +20.0	V
Maximum output current	I_{OUT}		30	mA
Allowable power dissipation	Pd max		1.13	W
Operating temperature	Topr		–20 to +75	˚C
Storage temperature	Tstg		–40 to +150	˚C

Allowable Operating Ranges at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Supply voltage	V_{CC}		4.75 to 55.0	V
Input high-level voltage	V_{IH}	I_{OUT}=–30mA	4.0 to 20.0	V
Input low-level voltage	V_{IL}	I_{OUT}≤–30μA	–0.3 to +0.3	V

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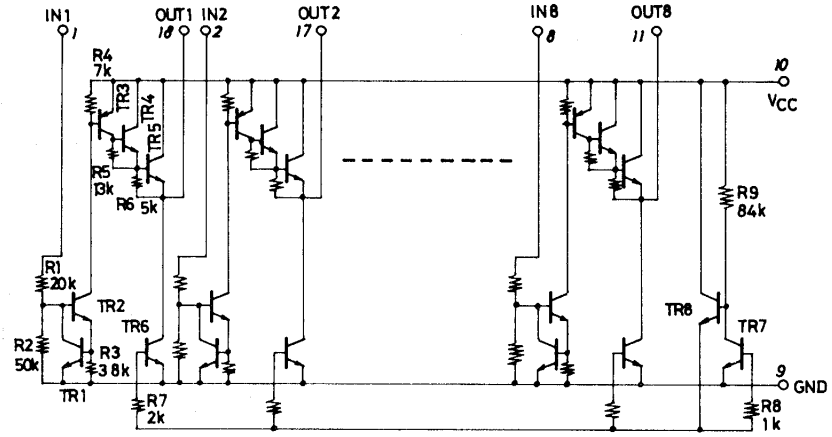
Electrical Characteristics at Ta = 25°C, V_{CC}=55V

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Current drain	I_{CCH}	All inputs, V_{IN}=10V		6.0	10.0	mA
	I_{CCL}	All inputs open	0.3	1.0	1.6	mA
Output voltage	V_{OH}	V_{IN}=10V, I_{OUT}=–30mA	V_{CC}–2.0	V_{CC}–1.6		V
	V_{OL}	V_{IN}=0.3V, I_{OUT}=0mA			200	mA
Output leakage current	I_{OL}	V_{IN}=0.3V, V_{OUT}=0.5V	–30			µA
Pull-down current	I_{OPL}	V_{OUT}=V_{CC}	0.2	0.4	1.0	mA
Input current	I_{IN1}	V_{IN}=20V	0.6	1.0	1.4	mA
	I_{IN2}	V_{IN}=10V	0.3	0.5	0.7	mA
	I_{INL}	V_{IN}=0V	–30			µA

Equivalent Circuit

Unit (resistance: Ω)



Pin Assignment